

# Polychlorinated Biphenyl Management



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# Polychlorinated Biphenyls (PCB)

- ❧ PCBs are any chemical substance limited to a biphenyl molecule that has been chlorinated
- ❧ Equipment, Items, and Articles using or contaminated by PCBs are also regulated under TSCA



# Toxic Substances Control Act (TSCA)



In 1976 the Toxic Substances Control Act (TSCA) authorized EPA to take specific measures to control the risks from polychlorinated biphenyls (PCBs).

# TSCA Regulations

- Conduct inspections of facilities to determine compliance under TSCA





To Conduct A TSCA Inspection  
A Determination Of the PCB  
Concentration of Electrical  
Equipment Is Essential



# PCB Concentration Assumptions

Non-PCB (0-49 ppm)

PCB-Contaminated  
(50-499 ppm)

PCB (greater than 500  
ppm)





# Non-PCB Concentration

## Assumptions

### 0 to 50 ppm

- ✿ Any transformer with less than 3 pounds (1.36 kg) of fluid whose concentration is unknown
- ✿ Any capacitor marked at the time of manufacture as “No PCBs”
- ✿ Any electrical equipment manufactured after July 2, 1979





# PCB-Contaminated Concentration Assumptions 50 ppm to 499 ppm

- ✿ Mineral oil-filled electrical equipment manufactured before July 2, 1979
- ✿ Pole-top and pad-mounted distribution transformers
- ✿ Mineral oil-filled electrical equipment whose manufactured date is unknown



# PCB Concentration Assumptions

## 500 ppm & Greater

- ✿ Transformers manufactured prior to July 2, 1979, that contains 1.36 kilograms (3 pounds) or more of fluid other than mineral oil whose PCB concentration is not established

- ✿ Transformers whose date of manufacture or type of dielectric fluid is unknown

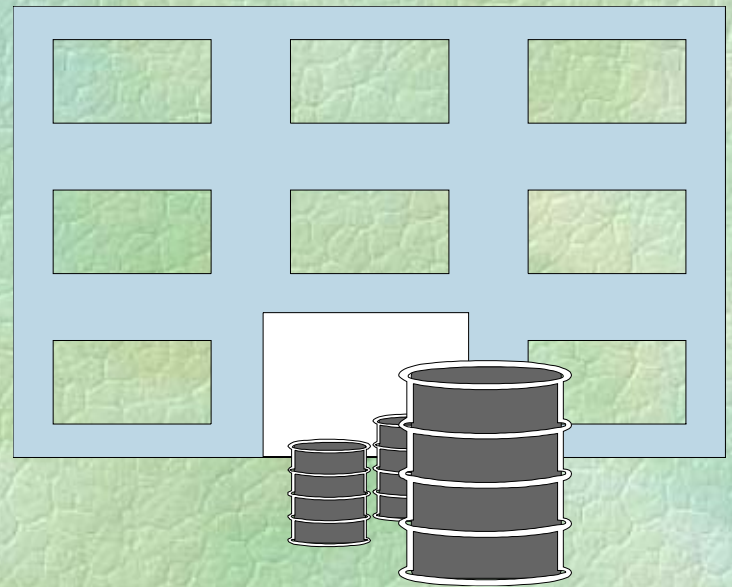
- ✿ Capacitors manufactured prior to July 2, 1979, whose PCB concentration is unknown or whose manufacture date is unknown



# Storage of PCBs 50 ppm & Greater

☞ Storage for Disposal

☞ Storage for Reuse





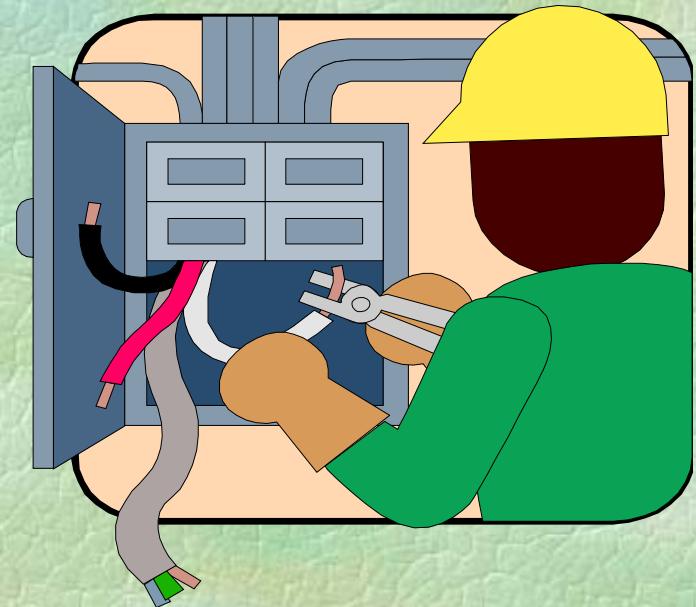
# Storage for Disposal

- ✿ PCBs or PCB items declared as waste
- ✿ PCBs or PCB items no longer fit for use
- ✿ PCB items no longer allowed to be serviced
- ✿ PCBs or PCB items not authorized for use
- ✿ Materials on which PCBs are spilled



# Storage for Reuse

- ❧ PCB Articles and Electrical Equipment that are awaiting repair
- ❧ PCB Articles and Electrical Equipment awaiting installation
- ❧ PCB Articles and Electrical Equipment that serve as spare items or replacements



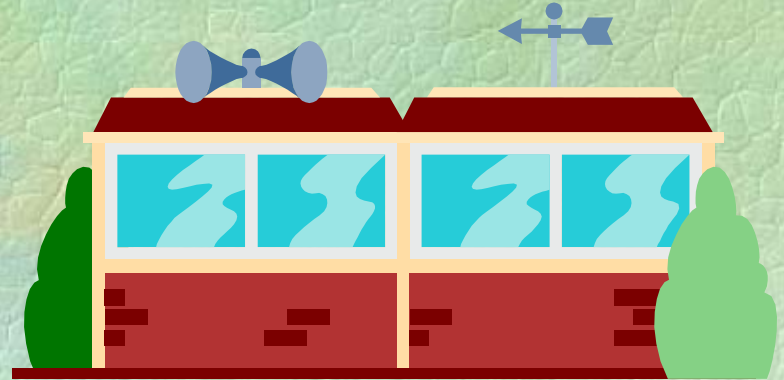


# Storage for Reuse Guidelines

- ✿ Indefinite Storage
- ✿ Storage for 5 Years After Item Was Originally Removed From Use
- ✿ Extension of 5 Year Limit



# Indefinite Storage For Reuse



- ❧ A unit that complies with §761.65(b)
- ❧ A unit permitted under section 3004 of RCRA to manage hazardous wastes in containers
- ❧ A unit permitted by a State authorized under section 3006 of RCRA to manage hazardous waste



# Indefinite Storage For Reuse

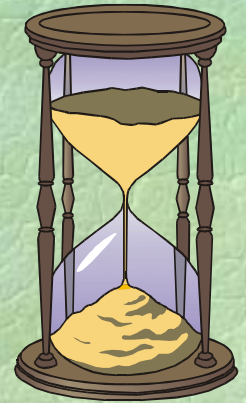
## ♻ Specifications

- Wall & roof
- Curbing
- Lack of valves/drains
- Non-porous surface
- 100-year flood





# Five Year Storage for Reuse



- ✿ PCB articles must meet use conditions per Subpart B
- ✿ PCB articles are properly marked per Subpart C
- ✿ Not required to be in a general or alternate storage unit

- ✿ Must maintain accurate records starting at time article is removed from service including
  - Date removed from use
  - Projected location and future use
  - Date due for servicing (if applicable)

40 CFR 761.35(a)



# Five Year Storage For Reuse

- ✿ An alternative to the recordkeeping requirement
  - Label the electrical equipment/Articles
    - Date placed in storage for reuse
    - Projected location or future use



# Subpart B: Usage

Applicable to Transformers whose PCB concentration is 500 ppm or greater

- ✿ Must be registered with building owners and EPA
- ✿ Combustible materials can not be stored near PCB Transformers
- ✿ Visual inspection of transformer shall be performed once every three months or once a year
- ✿ Cleanup of leaks must be initiated within 48 hours of its discovery



# Subpart C: Marking



❧ Specific electrical equipment containing PCBs of 500 ppm or more must be marked

- Transformers
- Large High & Low Voltage Capacitors
- Equipment containing PCB Transformers or PCB High Voltage Capacitors
- Electric motors, hydraulic systems, and heat transfer systems using PCBs
- Voltage Regulators



# Subpart C: Marking

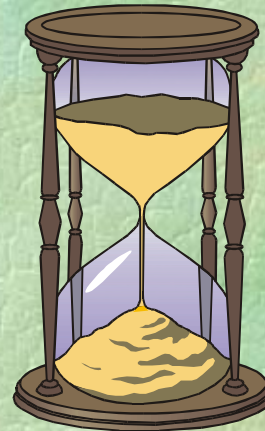
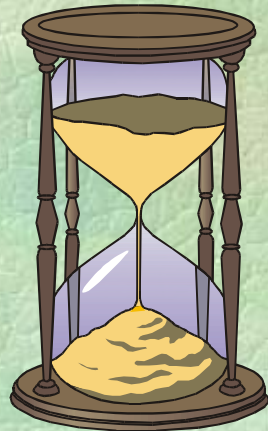


- ✿ Location of transformers and voltage regulators whose PCB concentration is 500 ppm or greater must be marked



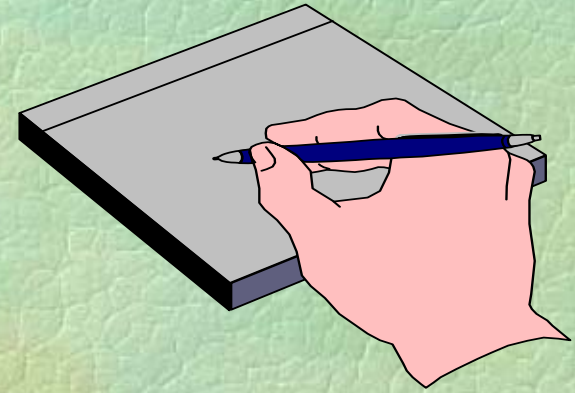
# Extension to 5-year Limit for Storage for Reuse

- ✿ Written request to EPA Regional Administrator
  - Must submit 6 months before expiration
  - Justify item-by-item
- ✿ PCB owner or operator must comply with all written conditions of extension approval





# Record Keeping



- ✿ Develop and maintain an Annual Document Log if the facility owns one PCB Transformer or 50 or more PCB Large High or Low Voltage Capacitors
- ✿ Indicate such PCB articles as “in use” or “in service” on Annual Document Log



# Summary of Regulations

## ✿ PCB Concentration Assumption

- 40 CFR 761.2

## ✿ Storage for Disposal

- 40 CFR 761.65(b)

## ✿ Storage for Reuse

- 40 CFR 761.35

## ✿ Subpart B (Usage)

- 40 CFR 761.30

## ✿ Subpart C (Marking)

- 40 CFR 761.40

## ✿ Record Keeping

- 40 CFR 761.180





# Useful Web Site

🌿 [www.adem.state.al.us](http://www.adem.state.al.us)

🌿 Alabama Environmental Management

- Protection Program
- Land Division
- Hazardous Waste
- PCBs
  - PCB Related Links
  - EPA PCB Homepage



# The Protection of the Environment is the Responsibility of Everyone

